

Work Order ID 56691

March 4, 2010 12:41:46 PM



Page 1

Item ID: D3676-1

Accept



Setup Start



Revision ID:

Stop



Item Name: BUBBLE WINDOW

Start Date: 3/05/10 Start Qty: 2.00



Cust Item ID:

Required Date: 3/12/10 Req'd Qty: 2.00

Customer:

Reference:

Run Start



Approvals: Process Plan: *RP*

Date: *10-3-04*

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3676

Rev B

100



Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

Set up Machine as per folio FTA 018 and D3676 program

10/03/15

110



Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

Cut Blanks to 33.5" by 50"

10/03/15
(X2)

120



Thermoform

Thermoforming Machine

THERMOFORMING MACHINE

0.00

Memo

0.00

Thermoform as per Dwg. *3676* and Folio FTA 018 Dwg. Rev.

B Folio Rev. *C*

10/03/15
(X2)



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Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

1) Check Surface finish for undesired marks, voids, dimples etc. 2) Check depth of bubble to ensure conformity to drawing tolerances.

BB
10/03/15 X2

140



QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

DL 10/03/15 X2

150



Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

1) Trim off excess flange material 2) Buff out any light scratches or blemishes 3) Etch part number and batch number

BD
10/03/15 X2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 56691

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Item ID: D3676-1

Accept



Setup Start



Revision ID:

Stop



Item Name: BUBBLE WINDOW

Start Date: 3/05/10 Start Qty: 2.00



Cust Item ID:

Required Date: 3/12/10 Req'd Qty: 2.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

BB

10/03/16

x2

170

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

5/10/16

(+2)

PL07

180

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

10/03/16 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3676-1 PAR #: _____ Fault Category: Thermoforming NCR: Yes No DQA: _____ Date: 10/03/15
 Resolution: Accepted Disposition: use as is QA: N/C Closed: Yes Date: 10/03/30

NCR: <u>56691</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>10/03/16</u>	<u>#170</u>	<u>Window (-2) Found that it has two Dimples in center. Found section of window. Dipped water came out of air gun. (possible) when blowing dust off the sheets prior to forming. R.C. process.</u>	<u>[Signature]</u>	<u>Thickness in area ^{Dimple} are .099" + .097"</u> <u>The thickness in air around area Dimple is .101"</u>	<u>[Signature]</u> <u>10/03/16</u>	<u>S</u> <u>10/03/16</u>	<u>[Signature]</u>	<u>S</u> <u>10/03/16</u>
			<u>[Signature]</u>	<u>Do not attempt to remove they are acceptable as is</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>S</u> <u>10/03/16</u>

NOTE: Date & initial all entries

Work Order ID 56691

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Page 4

Item ID: D3676-1

Accept



Setup Start



Revision ID:

Stop



Item Name: BUBBLE WINDOW

Start Date: 3/05/10

Start Qty: 2.00



Cust Item ID:

Required Date: 3/12/10

Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/03/17

U 10.03.16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 56691



Parent Item: D3676-1



Parent Item Name: BUBBLE WINDOW

Start Date: 3/05/10

Required Date: 3/12/10

Comments: IPP Rev A New Product 01/24/2008 DL Verified:JLM
IPP Rev B Change Mat. to .236"" 08/29/2008 DL

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MACRLICS.236		Purchased	No				sf	240.0000	26.0130			
Plexiglass G .236"												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
MAT	240	
110577	99	
113571	141	

10/03/10

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Shop Packet Print

Page 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 56691 #2
Description: 412 Bussing Window		Part Number: D3676-1
Inspection Dwg:	Rev:	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than _____"	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

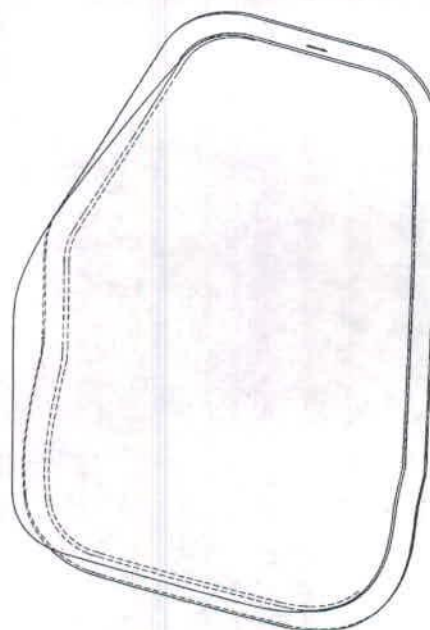
Measured by: BB Date: 10/03/16

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
46		46.375				
29.1		29.775				
17	±.5	17.125				
.090		.101				
.070		.097				
.050		.093				

Measured by: BB Date: 10/03/16
 Audited by: DL Date: 10/03/16
 Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	



D3676-1 412 BUBBLE WINDOW

NOTES:

- 1) MATERIAL: PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C OR POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425, 0.236 THICK (STOCK REF. DART SPEC. M-ACRYLIC-S.236)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: ENGRAVE P/N "D3676-1" & B/N "BXXXXX" ON FLANGE WITHIN 0.25" OF BUBBLE. USE 0.125" LETTERS TO MAX. DEPTH OF 0.005"
- 7) WEIGHT: 11.0 lbs
- 8) VACUUM FORM PER FOLIO FTA018 USING DT8992 MOLD AND DART QSI 022

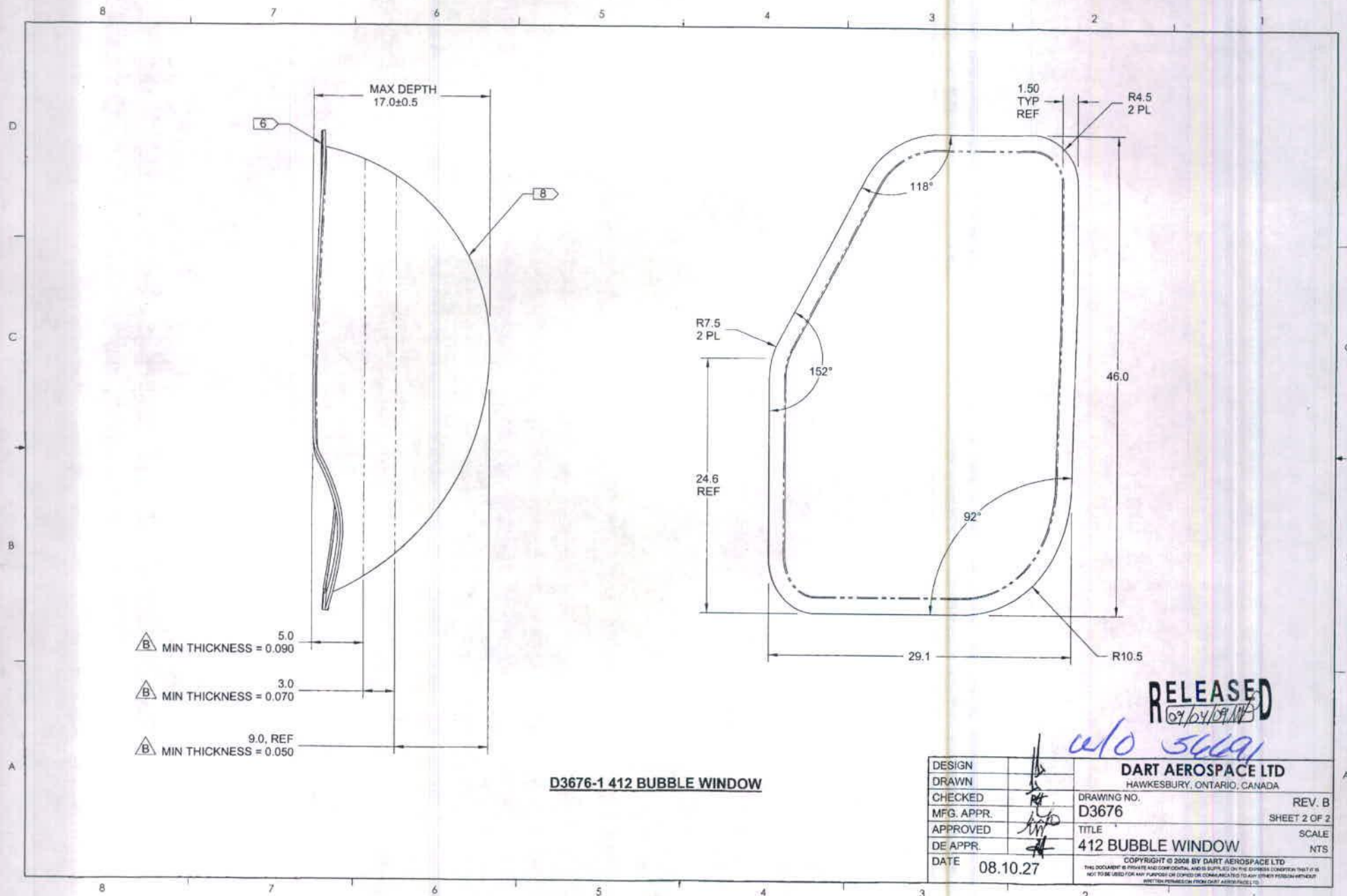
STOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 50691
8810-3-04

RELEASED
 09/04/04

B	REVISED TOLERANCE ON MINIMUM THICKNESSES (ZN A9/B8-2) REASON: PRODUCTION FACILITY.	MB	08.10.27
A	NEW ISSUE	MB	08.02.29
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.10.27		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO.	REV. B
D3676	SHEET 1 OF 2
TITLE	SCALE
412 BUBBLE WINDOW	NTS

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DART AEROSPACE LTD		Work Order: 56691 #1
Description: 412 BUBBLE (Window)	Part Number: D3676-1	
Inspection Dwg: D3676 Rev: B.	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than _____"	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: BB Date: 10/03/16

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
46.		46.75	✓			
29.1		29.75	✓			
17	±.5	17.	✓			
.090		.098	✓			
.070		.091	✓			
.050		.084	✓			

Measured by: BB Date: 10/03/16

Audited by: [Signature] Date: 10/03/16

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	

